ECOLOGY AND ENVIRONMENT, INC.

REGION VI

MEMORANDUM

925867

TO: Keith Bradley, Region RPO

FROM: Hunt Chapman, FIT Chemist X REF IN SA Vol. 1

THRU: K.H. Malone Jr., RPM

TXD 980623193

DATE: August 30, 1985

Dallas City of LDFL-Walnut Hill

SUBJ: Sampling Inspection at Walnut Hill Landfill, Dallas, TX (TX10154)
TDD# R6-8502-39

The Walnut Hill Landfill is located east of Stemmons Freeway (I-35E) between Luna Road on the west, Manana Drive on the south, and Southwell Street on the north in Dallas, Texas. The site is 490.75 acres and is bisected by Walnut Hill Lane (Refer to site map).

On April 10 and 11, 1985 the FIT conducted a sampling inspection at this site. The FIT included the following members: Hunt Chapman, Team Leader, and Team Members Steve Calhoun, Alcee Chriss, Katie Schenk, Les Cole and Ray Roblin.

On a previous reconnaissance inspection, a sediment sample collected showed sub ppb traces of aldrin and dieldrin and 23 other tentatively identified organic compounds in the ppm range. The rationale behind the April, 1985 sampling inspection was to determine if those contaminants were coming from the site, or were merely passing through it via the drainage channel and streams. The sample locations are shown on the site sketch included in this report. They consisted of 6 low waters and 14 low soils.

The property is currently owned by three parties:

Bluebird Farms, Inc.
800 Tower Life Building
San Antonio, Texas 78205

Mr. C.B. Myers
4808 Allen Crest
Dallas, Texas 75234

Placer Properties
1385 Promanade Center
Richardson, Texas 75080

Reviewed by 6AW-SC date 10-3-85

Mr. Ron Ewing of Placer Properties accompanied the FIT on April 11, 1985 during the sampling of the property owned by Placer Properties. He requested and was given split samples taken from his property.

Proposed Monitoring Well Plan

The Eagle Ford Shale formation underlies the Walnut Hill Sanitary Landfill site and the base of the landfill is located in the shale. The top of the Eagle Ford Shale at the location is at an elevation of approximately 400.0 to 410.0 feet. In at least one section of the landfill, the shale was excavated to an elevation of approximately 390.0 feet, about 20 feet into the shale. Current surface elevations at the proposed monitoring well locations range from about 425.0 to 435.0 feet. In order to determine if lateral movement of possible leachate is occurring, some of the monitoring wells should be installed to a depth of 35 to 45 feet. Reports of soil borings that were drilled at the landfill indicate that the groundwater table is in the range of 3 to 10 feet below the surface. The combination of a near surface water table and the deeper excavations in the shale indicate the need to install cluster wells at several of the proposed locations. The majority of the wells should be drilled approximately 7 feet into the shale and screened from about 2 feet above the water table to within 2 feet of the bottom of the hole. The deeper wells should be drilled approximately 20 feet into the Eagle Ford shale and screened for a 10 foot section near the bottom of the hole. Locations of the proposed wells are shown on the attached map. Actual locations will have to be field determined and the exact depths and screened intervals will depend on what is encountered during drilling of the wells.

Anticipated groundwater flow is expected to be to the west to southwest, basically parallel to the California Crossing Drainage Channel, toward the Elm Fork of the Trinity river. Because of the large extent of the Walnut Hill Sanitary Landfill it is recommended that monitoring wells be installed at eleven locations around the site. Locations No. 1 and 11 are located to the northeast to serve as upgradient wells. Downgradient wells, 2 through 10, should be located very close to the landfill boundary to eliminate the possibility of contamination from other areas. Locations 1, 4, 6 and 8 should have cluster wells installed as described above. The monitoring wells should be drilled with an auger of sufficient size for the installation of 2.0 inch I.D. schedule 80 PVC casing and well screen.

Estimated cost for drilling, installing and developing the monitoring wells is $21,500.00. The following is a breakdown of the cost by tasks:

Mobilization and demobilization	2,500.00
Soil boring and sampling	5,500.00
Well installation and development	10,500.00
Decontamination of drilling equipment and containerization of waste	3,000.00
Total Cost	$21,500.00

The cost of decontaminating drilling equipment between holes and waste containerization of drilled material into drums is included in this estimate. The estimate does not include the cost of drum disposal by a waste contractor. This estimate assumes that drilling related wastes generated on site can be disposed of at the Walnut Hill Sanitary Landfill.

There are two streams entering the landfill (See site map). On the northern boundary of the site, a third stream has been diverted around the site boundary. At a point on the northern site boundary, just east of the railroad tracks, the stream forms a pond. The depth of this pond is not known, but its southern edge is against the landfill clay cap.

Samples taken from this northern stream were at Stations 01 and 04. Station 03 is also in this area, in a ditch between railroad tracks and the western edge of the clay cap. This sample was taken at a point that appeared to be a surface water run off point indicated by significant erosion of the clay cap (Photo #2). The sample results for Station 01 (upstream) indicates that the water contains iron and manganese above the secondary drinking water standards. The soil sample taken at Station 01 contains 23 ppb endosulfan I. The results for Station 04 (downstream) relative to Station 01 indicate elevated levels of iron and manganese in the water and soil. The concentration of zinc in the soil downstream is also elevated while the level of zinc in the water is lower than the upstream concentration. Station 04 also contains fluoranthene, pyrene and beta-BHC in the ppb range. In addition there are 22 tentatively identified semi-volatile organic compounds in the soil at Station 04.

Station 03 contains fluoranthene and pyrene at approximately the same levels as Station 04. It also contains beta-BHC at about half the concentration of Station 04. In addition, a trace of tetra chloroethene was found at Station 03. None of the tentatively identified compounds found at Station 04 appear at Station 03.

The two streams crossing the site enter from the east side of the landfill, one north and one south of Walnut Hill Lane (see site map). They converge at a point on the site to make up the California Crossing drainage channel. Sample Stations 05, 06 and 07 are from the northern stream, sample Station 08 and 09 are from the southern stream, and Station 10 is the downstream sample from California Crossing taken off-site.

The sample results from the soil sample taken at Station 05 indicate the presence of fluoranthene, pyrene, phenanthrene, chlordane, and 17 tentatively identified semi-volatile compounds all in the low ppm range. Toluene, benzene, and chloroform were found in the low ppb range. The soil sample also contained elevated levels of silver, lead, copper and zinc. (The lead value is an estimate due to matrix interference in the samples). The water sample contained 15 ppb chloroform.

The only contaminant in the soil sample taken at Station 06 was a trace of chloroform (low ppb). The Station 07 soil sample contained traces of fluoranthene, pyrene (ppb range), and 11 tentatively identified semi-volatile compounds in the low ppm range. The water sample contained chloroform (9 ppb) and 5 tentatively identified compounds.

The water sample taken at Station 08 (upstream, south stream) had traces of chloroform, trans, 1-2 dichloroethene, N-nitroso diphenylamine, and bis(2 ethyl hexyl) phthalate. The phthalate may be a lab contaminant. The soil sample taken at this station, contained fluoranthene, (1200 ppb), pyrene (1260 ppb), chrysene (516 ppb) and 17 tentatively identified semi-volatile compounds. It also contained elevated levels of lead and zinc. (The lead value is an estimated value due to matrix interference).

The soil sample taken at Station 09 (approximately 1000 feet downstream) contained increased levels of these and other compounds indicating that these compounds are entering the stream from the landfill. This sample also contained traces of benzene, naphthalene, acenaphthalene and fluorene as well as 17 additional tentatively identified compounds not found at Station 08. The concentrations of lead and zinc are also elevated relative to Station 08 (The lead value is an estimate due to matrix interference).

The downstream sample taken at Station 10 did not show any of the contaminants seen in the upstream samples.

The samples taken at Stations 11-15 represent surface run-off points at various site boundary locations. The sample from Station 11 contained traces of fluoranthene and pyrene as well as endosulfan I (14 ppb), DDT (110 ppb) and 4 tentatively identified compounds.

The sample from Station 12 contained fluoranthene (2100 ppb), pyrene (1700 ppb), phenanthrene (990 ppb), benzo(a)anthracene (770 ppb), chrysene (840 ppb), benzo(b)fluoranthene (600 ppb), benzo(k)fluoranthene and benzo(1)pyrene as well as traces of benzoic acid, acenaphthylene, acenaphthene and fluorene. the sample also contained 14 tentatively identified semi-volatile compounds.

The sample from Station 13 only contained 4 tentatively identified compounds.

The sample from Station 14 contained arochlor 1254 (300 ppb), beta BHC (12 ppb), traces of fluoranthene, pyrene and phenanthrene, as well as 3 tentatively identified compounds.

The sample from Station 15 contained traces of diethyl phthalate, di-n-octyl phthalate, fluoranthene, pyrene, benzo(a)anthracene, chrysene, butyl benzyl phthalate and one tentatively identified compound.

The data from this site indicates that several contaminants are entering the site via the incoming streams, and that contaminants are also leaching into the stream at Station 09 on-site. However, the downstream sample taken at Station 10 does not indicate that they are going off-site. There are thick stands of cattails and other plants in parts of the California Crossing. Considering the low levels of contaminants in the area, the low flow of water through the site, and the nature of the contaminants, bioaccumulation in these plants, adsorption onto clay, and natural biodegradation are possible scenarios to account for this.

Contaminants may be leaving the site near Station 04 via the stream on the northern landfill boundary. Also, the results indicate possible leachate run-off at Station 12. However, the area around the landfill is heavily industrialized leaving questions as to the source of the contamination.

Based on the analytical data and on-site observations, the FIT makes the following recommendations:

1) The proposed groundwater monitoring well plan (attached) should be implemented immediately to check for groundwater contamination.

2) After installation and initial sampling of the wells, a yearly sampling program should be instituted.

Since the landfill is in a growth area, the yearly monitoring plan will help assess the impact of any changes or development in or near the landfill as it applies to the groundwater.

3) Maintenance of the landfill cap (i.e. filling the erosion gullies), should be accomplished to insure that run-off water does not contact the fill material in the landfill.

4) Since the level of contaminants in the surface samples taken is relatively low, the need for any additional surface sampling should be assessed after the groundwater results are evaluated.

Sample Station	Description
01	Immediately north of Joe Field Rd. at stream crossing. Approximately 30 feet north of road in stream ravine.
03	Erosion path at NW corner of site east of Station 04 approximately 30 feet east of railroad tracks.
04	"W" street at Tantor Rd. on east side of road at culvert.
05	South side of California Crossing on west side of bridge under Malibu Lane.
06	Ditch on east side of Goodnight Lane at California Crossing.
07	Approximately 500 feet north of convergence of California Crossing and other stream.
08	20 feet west of culvert under I-35 Stemmons Frwy.
09	East side of dirt road beside culvert at the edge of the stream.
10	50 feet north of railroad bridge at California Crossing.
11	Off-site on west side of landfill at the projected intersection of Walnut Hill Rd. and Spangler Rd.
12	East side of Luna Rd. in ditch. At the projected intersection of Walnut Hill Rd. and Luna Rd.
13	East side of Spangler Rd., 30 feet from SW corner of property line.
14	Immediately north of Manana Rd., approximately 30 feet ESE of intersection with Newkirk St.
15	Off-site at SE corner of property at edge of pond.

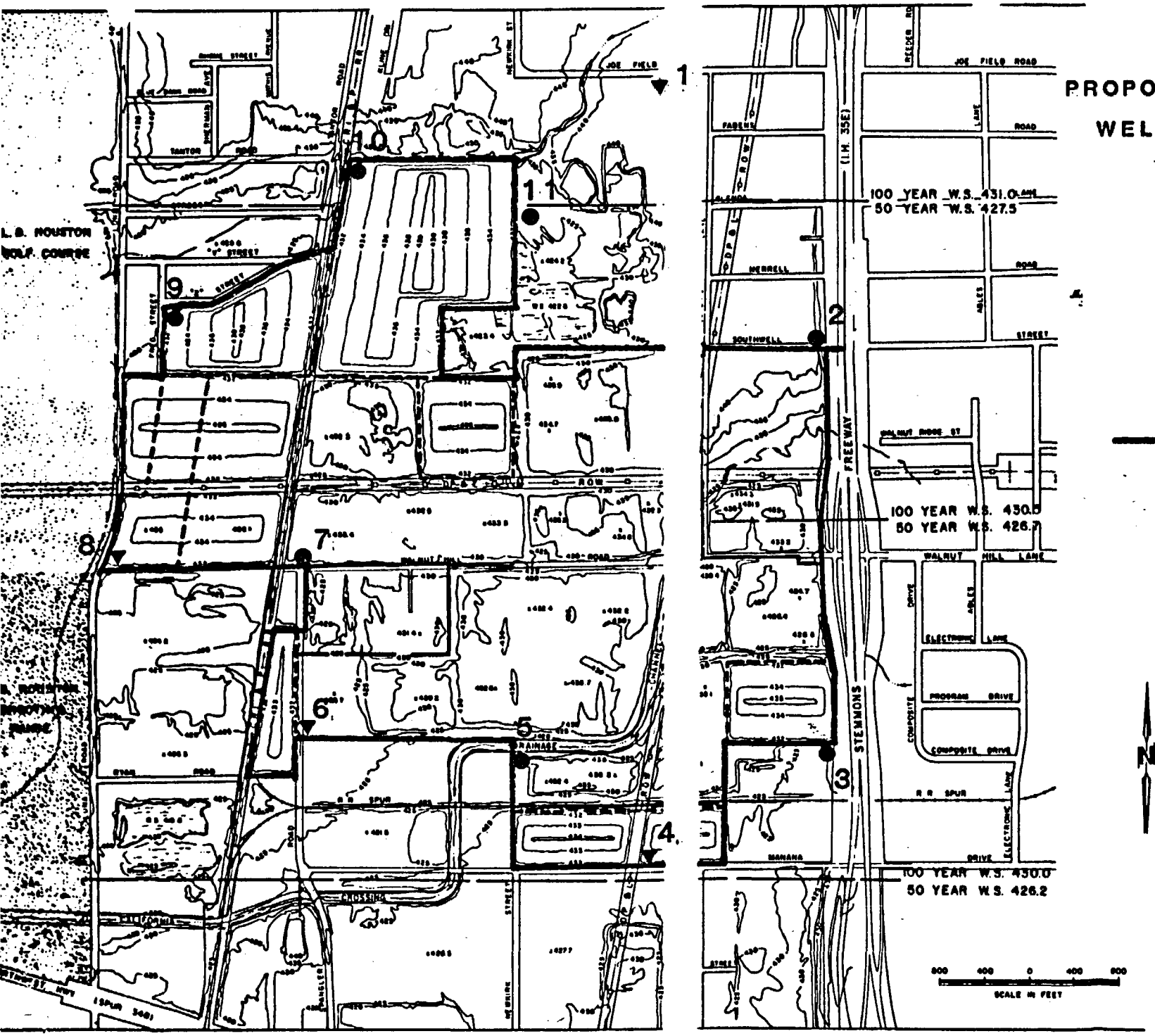

PROPOSED MONITORING WELL LOCATIONS
SINGLE WELL
CLUSTER WELLS
LANDFILL BOUNDARY
100 YEAR W.S. 431.0
50 YEAR W.S. 427.5
100 YEAR W.S. 430.5
50 YEAR W.S. 426.7
100 YEAR W.S. 430.0
50 YEAR W.S. 426.2
1
2
3
4
5
6
7
8
9
10
11
JOE FIELD ROAD
STEMMONS FREEWAY
(I.H. 35E)
WALNUT HILL LANE
ELECTRONIC DRIVE
PROGRAM DRIVE
COMPOSITE DRIVE
R.R. SPUR
MANANA DRIVE
SOUTHWELL
MERRELL ROAD
DRAINAGE
CROSSING
L.B. HOUSTON GOLF COURSE
SCALE IN FEET

TABLE I . INORGANIC ANALYSIS SUMMARY

CASE NUMBER: 4166

SITE NAME/CODE: Walnut Hill Landfill
TX10154

CONCENTRATIONS (ppm)

PARAMETER	EPA Sample Numbers										Ambient Background 1.	
	MFA065	MFA017	MFA016	MFA078	MFA076	MFA077	MFA075	MFA074	MFA070	MFA068	Western U.S. 2.	Eastern U.S. 2.
Matrix Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Aluminum	9174	11,152	10,821	2447	3303	5795	7554	9489	14,300	2988	58,000	33,000
Antimony R											.47	.52
Arsenic											5.5	4.8
Barium	85	45	92	51	33	60	65	179	85	33	580	290
Beryllium	1.1	1.2	1.4	0.4	0.7	0.7	1.1	1.3	1.1	0.7	0.68	0.55
Cadmium											<1	<1
Chromium E	15	25	26	14	13	12	22	29	21	12	41	33
Cobalt	4	11	8	4	5	5	9	10	6	6	7.1	5.9
Copper	7	14	11	49	9	10	22	70	7	4	21	13
Iron	11,795	30,841	27,714	12789	15,256	12107	27,466	26,698	17,415	15,551	21,000	14,000
Lead	20.5	6.7	17.9	154 *E	13.4	36.1	133 E*	400 E*	9.2	15.9	17	14
Manganese	163	205	503	216	237	228	366	280	219	252	380	260
Mercury											0.046	0.081
Nickel		23	21				18	29			15	11
Selenium R											.23	.30
Silver			2	20.5				1.9			-	-
Thallium											9.1	7.7
Tin											.90	.96
Vanadium	25.9	22.7	36.4	15.9	23.7	16.1	30.7	32.4	26.5	17.2	70	43
Zinc	48	92	58	114	47	73	116	359	51	44	55	40
Cyanide												
Calcium	12,402	18,500	104,929	94,535	18,896	20,336	79,054	36,948	14,877	7507		
Magnesium	1282	5097	2518	1084	673	1323	1702	2526	3116	667		
Potassium	2175	3554	2241	516	836	1842	1714	2948	3115	1795		
Sodium	736	838	871	782	626	305	696	1234	1218	569		
Station No.	01	03	04	05	06	07	08	09	10	11		
Sample Station Location	30' N. OF JOE FIELD RD. AT STREAM	30' E. OF R.R. TRACK E. OF STA 4	W ST. AT TENTOR RD. E. OF ROAD	W. OF MALIBU LN. @ CALIF. CROSSING CANAL BRIDGE	E. OF GOOD-NIGHT LANE @ CALIF. CROSSING CANAL	E. SIDE CALIF. CROSSING CANAL 500' N. OF CONVERGENCE	W. OF CULVERT STREAM CROSSING I-35	E. SIDE CULVERT DIRT ROAD CROSSING STREAM	CALIF. CROSSING DRAINAGE 50' N. OF R.R. BRIDGE	INTERSECTION WALNUT HILL & SPANGLER		

E-indicates a value estimated or not reported due to the presence of interference
R-spike sample recovery is not within control limits
*-duplicate analysis is not within control limits

1. Values obtained from "Element Concentrations in Soils and Other Surface Materials of the Conterminous United States", dated 1984. U.S.G.S. Professional Paper 1270.
2. Reference for East/West Division is the 96°W longitudinal line which bisects Region VI.

TABLE I . INORGANIC ANALYSIS SUMMARY

CASE NUMBER: 4166

SITE NAME/CODE: Walnut Hill Landfill
TX10154

CONCENTRATIONS (ppm)

PARAMETER	EPA Sample Numbers										Ambient Background 1.	
	MFA067	MFA014	MFA072	MFA073							Western U.S. 2.	Eastern U.S. 2.
Matrix Type	Soil	Soil	Soil	Soil							Soil	Soil
Aluminum	6932	2381	2124	3068							58,000	33,000
Antimony R											.47	.52
Arsenic											5.5	4.8
Barium	70	19	38	26							580	290
Beryllium	0.9	0.5	0.4	0.7							0.68	0.55
Cadmium											<1	<1
Chromium E	19	9	12	8							41	33
Cobalt	5										7.1	5.9
Copper	7	2	5	2							21	13
Iron	17,418	11,624	10258	12,647							21,000	14,000
Lead	51 E*	10.2	103 E*	17.3							17	14
Manganese	324	185	231	94							380	260
Mercury											0.046	0.081
Nickel											15	11
Selenium											.23	.30
Silver	1.4										-	-
Thallium											9.1	7.7
Tin											.90	.96
Vanadium	22.8	12.9	12.6	13.5							70	43
Zinc	66	28	97	42							55	40
Cyanide												
Calcium	75,274	13,919	90,258	7447								
Magnesium	1856	507	1694	626								
Potassium	1988	1164	754	1370								
Sodium	818	497	448	612								
Station No.	12	13	14	15								
Sample Station Location	PROJECTED INTERSECTION WALNUT HILL & LUNA	30' FROM S.W. CORNER PROPERTY	N. OF MANANA RD. 30' E. OF NEWKIRK RD.	EDGE OF POND S.E. CORNER PROPERTY								

E-indicates a value estimated or not reported due to the presence of interference
R-spike sample recovery is not within control limits
*-duplicate analysis is not within control limits

1. Values obtained from "Element Concentrations in Soils and Other Surface Materials of the Conterminous United States", dated 1984. U.S.G.S. Professional Paper 1270.
2. Reference for East/West Division is the 96°W longitudinal line which bisects Region VI.

TABLE I . INORGANIC ANALYSIS SUMMARY

CASE NUMBER: 4166

SITE NAME/CODE: Walnut Hill Landfill
TX10154

CONCENTRATIONS (ppb)

PARAMETER	EPA Sample Numbers										Ambient Background 1.	
	MFA066	MFA015	MFA083	MFA081	MFA082	MFA071	MFA069	MFA080			Western U.S. 2.	Eastern U.S. 2.
Matrix Type	Water	Water	Water	Water	Water	Water	Water	Water			Soil	Soil
Aluminum	712	664	2519	23,950	179	604					58,000	33,000
Antimony											.47	.52
Arsenic				11							5.5	4.8
Barium	46	38	93	412	92	207					580	290
Beryllium				2.3							0.68	0.55
Cadmium											<1	<1
Chromium	11	7	9	51		4	7	2			41	33
Cobalt				21							7.1	5.9
Copper	8	4	144	102	5		82	5			21	13
Iron	746	1309	3447	45,590	587	1088	27	111			21,000	14,000
Lead	6.6		92*	277*							17	14
Manganese	74	132	263	1362	206	231	2	3			380	260
Mercury											0.046	0.081
Nickel				49							15	11
Selenium											.23	.30
Silver	4.2			7.9			6.6				-	-
Thallium											9.1	7.7
Tin											.90	.96
Vanadium	10.5	8.6	7.3	65.5			5.1				70	43
Zinc	208	15	106	407	14	18	77	32			55	40
Cyanide R												
Calcium	70,730	26,290	134,200	221,400	87,460	126,200		469				
Magnesium	3330	2780	8562	18,450	6960	21,330	816					
Potassium	4623	5774	6724	19,500	11,950	25,420						
Sodium	46,600	462,400	102,300	146,400	79,190	201,000		1412				
Station No.	01	04	05	07	08	010	16	17				
Sample Station Location	30' N. OF JOE FIELD RD. AT STREAM	W. ST. AT TENTOR RD. E. OF ROAD	W. OF MALIBU LN. @ CALIF. CROSSING CANAL BRIDGE	E. SIDE CALIF. CROSSING CANAL 500' N. OF CONVERGENCE	W. OF CULVERT STREAM CROSSING I35	CALIF. CROSSING DRAINAGE CANAL 50' N. OF R.R. BRIDGE	RINSATE BLANK	RINSATE BLANK				

E-indicates a value estimated or not reported due to the presence of interference
R-spike sample recovery is not within control limits
*-duplicate analysis is not within control limits

1. Values obtained from "Element Concentrations in Soils and Other Surface Materials of the Conterminous United States", dated 1984. U.S.G.S. Professional Paper 1270.
2. Reference for East/West Division is the 96°W longitudinal line which bisects Region VI.

Table II: ORGANIC ANALYSIS SUMMARY

Site Name/Code Walnut Hill LF TX10154 Case Number 4166 Concentration ppb Page 1 of 5

Sample Station Number and Location			01	03	04	05	06	07	08	09	10
Compound	Scan No.	Fraction /Class	FB285	FB284	FB237	FB297	FB295	FB296	FB294	FB293	FB235
EPA SAMPLE NUMBER											
MATRIX			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Methylene chloride		VOA/1	6 B	5 B	4J B	8 B	12 B	10 B	5J B	10J B	5J B
Tetra chloro ethene		VOA/1		1J							
Acetone		VOA/2	23 B								
Toluene		VOA/1				6J					
Benzene		VOA/1				5J				3J	
Chloroform		VOA/1				2J	2J				
Diethyl phthalate		ABN/1									52J
Di-n-butyl phthalate		ABN/1	179JB	274JB	239JB	250JB	84JB				73JB
Bis(2-ethyl hexyl) phthalate		ABN/1			164JB		106JB	575JB	2229J	15,000B	140JB
Di-n-octyl phthalate		ABN/1									46J
Fluoranthene		ABN/1		117J	93J	1500		221J	1200	9800	
Pyrene		ABN/1		76J	110J	2100		243J	1260	16,000	
Benzoicacid		ABN/1									
4-chloro-3-methyl phenol		ABN/1									
Acenaphthylene		ABN/1									
Acenaphthene		ABN/1								280J	
Fluorene		ABN/1								730J	
Phenanthrene		ABN/1				590			440J	6700	
Benzo (a) anthracene		ABN/1							353J		
Chrysene		ABN/1							516	7100	
Benzo (b) anthracene		ABN/1									
Benzo (k) anthracene		ABN/1									
Benzo (a) pyrene		ABN/1									
Butyl benzyl phthalate		ABN/1									
naphthalene		ABN/1								130J	
Beta-BHC		Pest/1		70J	140						
Endosulfan		Pest/1	23								
4,4'-DDT		Pest/1									
Aroclor	1254	Pest/1									
Chlordane		Pest/1				330J					
Silane		VOA/3						60J			
4-hydroxy-4-methyl-2pentanone	311	ABN/3	9300JB	5000JB	6700JB	7800JB	6300JB	44,000JB	33,000JB	55,000JB	88,000JB
Unknown	334	ABN/3	720JB	P B	780JB		550JB	750JB	PB	PB	920JB
Unknown	512	ABN/3	2100JB	1900JB	2300JB	4000JB	2300JB	1900JB	1400JB		PB
4-methyl-2-pentanone	245	ABN/3	PB	390JB	PB		PB	PB			
2-cyclohexen-1-one	452	ABN/3	PB	550JB	4300JB		PB	PB	PB	PB	PB
Unknown	299	ABN/3		PB			PB	PB			
Alkane	2025	ABN/3	490J								
Unknown	2855	ABN/3	620J								
Ethyl cyclobutane	292	ABN/3		440J							
Alkene	2033	ABN/3			1100J	8600J			1300J		
Alkene	2042	ABN/3			1000J			840J	1400J		
Alkene	2078	ABN/3			720J						
Alkene	2126	ABN/3			850J	5500J				4300J	
Alkene	2143	ABN/3			540J						
Alkene	2152	ABN/3			720J	3200J			1000J		
Alkene	2161	ABn/3			720J				1100J	4500J	

1. Priority Pollutant.
2. Specif ed Hazardous Substance.
3. Tentatively Identified.

VOA - Volatile
ABN - Acid Base/Neutral
Pest - Pesticide

B - The analyte is found in the lab blank.
J - Indicates an estimated value for tentatively identified compounds or for compounds found below detection limit.
P - Present in sample, but not reported by lab.

Table II: ORGANIC ANALYSIS SUMMARY

Site Name/Code Walnut Hill LF TX10154 Case Number 4166 Concentration ppb Page 2 of 5

Sample Station Number and Location			01	03	04	05	06	07	08	09	10				
Compound	Scan No.	Fraction /Class	FB285	FB284	FB237	FB297	FB295	FB296	FB294	FB293	FB235				
EPA SAMPLE NUMBER															
MATRIX			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Alkene	2178	ABN/3			1400J	4500J									
Alkene	2213	ABN/3			670J	4400J									
Alkene	2483	ABN/3			1100J										
Alkene	2601	ABN/3			1500J	3500J		1100J	2500J						
Alkene	2955	ABN/3			800J										
Alkene	295	ABN/3						720J							
Alkene	2087	ABN/3				7300J			2000J						
Alkene	2396	ABN/3				3800J									
Alkene	2492	ABN/3				6400J		720J							
Alkene	2501	ABn/3				6500J									
Alkene	2519	ABN/3				3800J									
Alkene	2619	ABN/3				4100J									
Alkene	2628	ABN/3				4700J									
Alkene	2594	ABN/3							1200J						
Alkene	1934	ABN/3								5600J					
Alkane	2070	ABN/3			3800J			4500J							
Alkane	2441	ABN/3			1600J				2300J						
Alkane	2449	ABN/3			1700J	10,000J		5700J	940 J						
Alkane	1226	ABN/3				550J									
Alkane	1653	ABN/3							2100J						
Alkane	1924	ABN/3							1400J						
Alkane	478	ABN/3								1100J					
Alkane	547	ABN/3								1300J					
Alkane	583	ABN/3								2500J					
Alkane	627	ABN/3								920J					
Alkane	909	ABN/3								890J					
Alkane	1072	ABN/3								1300J					
Alkane	1110	ABN/3								1000J					
Alkane	1500	ABN/3								5800J					
Alkane	2103	ABN/3								25000J					
Alkane	2484	ABN/3								21,000J					
Unknown	2170	ABN/3			2400J				2400J						
Unknown	330	ABN/3						2800J			2350J				
Unknown	438	ABN/3						2000J	1600J	3100J	1600J				
Unknown	308	ABN/3							2100J		590J				
Fluoro phenol	332	ABN/3				1300J									
Phthalate	1705	ABN/3				4100J									
Aldehyde	1490	ABN/3						620J	970J						
Aldehyde	1610	ABN/3						1700J	2000J						
Alcohol	2612	ABN/3							1400J						
-methyl ethane thioic acid	276	ABN/3								6000J					
Alcohol	1148	ABN/3								8600J					
Acid	1190	ABN/3								1300J					
Carbazole	1276	ABN/3								1100J					
Unknown PNA	1545	ABN/3								1400J					

1. Priority Pollutant.
2. Specif ed Hazardous Substance.
3. Tentatively Identified.

VOA - Volatile
ABN - Acid Base/Neutral
Pest - Pesticide

B - The analyte is found in the lab blank.
J - Indicates an estimated value for tentatively identified compounds or for compounds found below detection limit.
P - Present in sample, but not reported by lab.

Table II: ORGANIC ANALYSIS SUMMARY

Site Name/Code Walnut Hill LF TX10154 Case Number 4166 Concentration ppb Page 3 of 5

Sample Station Number and Location / Compound	Scan No.	Fraction /Class	11	12	13	14	15
EPA SAMPLE NUMBER			FB288	FB287	FB290	FB291	FB292
MATRIX			Soil	SOIL	SOIL	SOIL	SOIL
Methylene Chloride		VOA/1	6 B	7 B	5 B	5 B	7 B
Tetra chloro ethene		VOA/1					
Acetone		VOA/2	29B	23B			
Toluene		VOA/1				2J	
Benzene		VOA/1					
Chloroform		VOA/1					
Diethyl phthalate		ABN/1					44J
Di-n-butyl phthalate		ABN/1	268JB		72JB	41JB	427JB
Bis(2-ethyl hexyl)phthalate		ABN/1	107JB	370JB			77 JB
Di-n-octyl phthalate		ABN/1					70J
Fluoranthene		ABN/1	88J	2100		317J	96J
Pyrene		ABN/1	63J	1700		180J	64J
Benzoic acid		ABN/2		860J			
4-chloro-3-methyl phenol		ABN		22J			
Acenaphthylene		ABN/1		24J			
Acenaphthene		ABN/1		46J			
Fluorene		ABN/1		76J			
Phenanthrene		ABn/1		990		83J	
Benzo (a) anthracene		ABN/1		770			85J
Chrysene		ABN/1		840			78J
Benzo (b) fluoranthene		ABN/1		600			
Benzo (k) fluoranthene		ANB/1		630			
Benzo (a) pyrene		ABN/1		920			
Butyl benzyl phthalate		ABN/1					43J
Naphthalene		ABN/1					
Beta-BHC		Pest/1				12	
Endosulfan I		Pest/1	140J				
4,4'-DDT		Pest/1	110				
Aroclor 1254		Pest/1				300	
Chlordane		Pest					
4-hydroxy-4-methyl-2-pentanone	315	ABN/3	8500JB	6700JB	30,000B	72,000B	30,000B
Unknown	334	ABN/3	P B	600JB	860JB	570JB	8400JB
Unknown	512	ABN/3	2900JB	2800JB	P B	880B	640 B
4-methyl-2-pentanone	245	ABN/3		P B			
2-cyclohexen-1-one	452	ABN/3	P B	P B	P B	P B	P B
Alkene	2078	ABN/3		900J			
Alkene	2213	ABN/3		670J			
Alkene	2483	ABN/3			380J		
Alkene	2087	ABN/3		560J			
Alkene	2492	ABN/3		760J			
Alkene	2004	ABN/3		950J			
Alkene	2204	ABN/3		790J			
Alkene	2547	ABN/3		510J			
Alkene	2463	ABN/3			400J		
Alkane	2070	ABN/3	1000J				
Alkane	2441	ABN/3	2000J				
Alkane	1414	ABN/3		630J			

1. Priority Pollutant.
2. Specif ed Hazardous Substance.
3. Tentatively Identified.

VOA - Volatile
ABN - Acid Base/Neutral
Pest - Pesticide

B - The analyte is found in the lab blank.
J - Indicates an estimated value for tentatively identified compounds or for compounds found below detection limit.
P - Present in sample, but not reported by lab.

Table II: ORGANIC ANALYSIS SUMMARY

Site Name/Code Walnut Hill LF TX10154 Case Number 4166 Concentration ppb Page 4 of 5

Sample Station Number and Location		11	12	13	14	15								
Compound	Scan No.	Fraction /Class	FB288	FB287	FB290	FB291	FB292								
EPA SAMPLE NUMBER															
MATRIX			Soil	Soil	Soil	Soil	Soil								
Alkane	1831	ABN/3		610J											
Alkane	3037	ABN/3		470J											
Alkane	2027	ABN/3			380J										
Alkane	2410	ABN/3				2500J									
Unknown	438	ABn/3		1200J		1300J	1100J								
Unknown	308	ABN/3		1900J		1800J									
Unknown	1526	ABN/3	1000J												
Unknown	287	ABN/3		700J											
Unknown	194	ABn/3			1200J										
Unknown	505	ABN/3				340J									
Aldehyde	1023	ABN/3				450J									
Ethyl cyclobutane	292	ABN/3	580J												

1. Priority Pollutant.
2. Specif ed Hazardous Substance.
3. Tentatively Identified.

VOA - Volatile
ABN - Acid Base/Neutral
Pest - Pesticide

B - The analyte is found in the lab blank.
J - Indicates an estimated value for tentatively identified compounds or for compounds found below detection limit.
P - Present in sample, but not reported by lab.

Table II: ORGANIC ANALYSIS SUMMARY

Site Name/Code Walnut Hill LF TX10154 Case Number 4166 Concentration pp Page 5 of 5

Sample Station Number and Location			01	04	05	07	08	10	16	17					
Compound	Scan No.	Fraction /Class	FB286	FB236	FA736	FA735	FB300	FB234	FB289	FA737					
EPA SAMPLE NUMBER															
MATRIX			Water	WATER	WATER	WATER	WATER	WATER	BLANK	BLANK					
Methylene chloride		VOA/1	6 B	6 B	7 B	7 B	6 B	6 B	7 B	7 B					
Chloroform		VOA/1			15	9	5J								
1,1,1-trichloro ethane		VOA/1								5J					
Tran-1,2-dichloroethene		VOA/1					5J	5J							
is(2-ethyl Hexyl)phthalate		ABN/1	690	230	20J		20J	75							
N-nitroso diphenyl amine		ABN/1					20J								
Silane	88	VOA/3				7J									
Unknown	91	VOA/3				7J									
Trinitro methane	94	VOA/3	24JB	34JB	19JB	7JB	39JB		31JB	13JB					
Silane	425	VOA/3				30J									
Unknown	88	VOA/3								35J					
Unknown	86	VOA/3	24J												
Silane	485	ABN/3				33J				13J					
2,2'-oxybis-propane	660	ABN/3				19J				68J					
Phthalate	2051	ABN/3			29J										
Phthalate	2084	ABN/3			19J				18J						
1,2-dichloro cyclohexane	618	ABN/3	13JB	12JB			12JB	11JB	22JB	11JB					
Unknown	306	ABN/3		15JB											
Unknown	580	ABN/3	14J	10J											
Unknown	253	ABN/3	12J												
Phthalate	1944	ABN/3							15J						

1. Priority Pollutant.
2. Specif ed Hazardous Substance.
3. Tentatively Identified.

VOA - Volatile
ABN - Acid Base/Neutral
Pest - Pesticide

B - The analyte is found in the lab blank.
J - Indicates an estimated value for tentatively identified compounds or for compounds found below detection limit.
P - Present in sample, but not reported by lab.

FEDERAL EXPRESS

USE THIS AIRBILL FOR DOMESTIC SHIPMENTS AND FOR SHIPMENTS FROM PUERTO RICO TO THE U.S.A. FILL OUT PURPLE AREAS. FOR ASSISTANCE, CALL 800-238-5355, TOLL FREE. IN ALASKA AND HAWAII, CALL 800-238-3064. SEE BACK OF FORM SET FOR COMPLETE PREPARATION INSTRUCTIONS

Sender's Federal Express Account #: 501 0752-5840-2

Date: 4/7/??

1 From (Your Name) | Your Phone Number (Very Important)

Company: ECOLOGY & ENVIRONMENT INC | Department/Floor No.

Street Address: 1509 MAIN ST STE 814

City: DALLAS | State: TX

ZIP (Zip Code Required For Correct Invoicing): 75201

AIRBILL NO. 4294364464

2 To (Recipient's Name) | Recipient's Phone Number (Very Important)

Company | Department/Floor No.

Exact Street Address (Use of P.O. Boxes or P.O. Zip Codes Will Delay Delivery And Result In Extra Charge)

City | State

ZIP Street Address Zip Required

SHIPPER'S COPY

3 YOUR BILLING REFERENCE INFORMATION (FIRST TWELVE CHARACTERS WILL APPEAR ON INVOICE)

PAYMENT: Bill Shipper | Bill Recipient's FedEx Acct. No. Fill in line below | Bill 3rd Party FedEx Acct. No. Fill in line below | Bill Credit Card Fill in line below | Cash

FedEx Acct. No. or Major Credit Card No.

HOLD FOR PICK-UP AT THIS FEDERAL EXPRESS ADDRESS: Street Address (See Service Guide or Call 800-238-5355)

City | State

ZIP Zip Code of Street Address Required

Federal Express Use: Base Charges | Declared Value Charge | Origin Agent Charge | Other | Total Charges

4 SERVICES CHECK ONLY ONE BOX

PRIORITY 1 — 1 Overnight Delivery Using Your Packaging

OVERNIGHT LETTER — 6 (Our Packaging) 8"x12"

OVERNIGHT DELIVERY USING OUR PACKAGING
- 2 Courier-Pak Overnight Envelope 12" x 15½"
- 3 Overnight Box 12⅛" x 17⅞" x 3"
- 4 Overnight Tube 38" x 6" x 6" x 6"
- 8

STANDARD AIR
- 5 Delivery not later than second business day

SERVICE COMMITMENT
PRIORITY 1 - Delivery is scheduled early next business morning in most locations. It may take two or more business days to or from Alaska or Hawaii, or if the destination is outside our primary service areas.
STANDARD AIR - Delivery is generally next business day or not later than second business day. It may take three or more business days to or from Alaska or Hawaii, or if the destination is outside our primary service areas.

DELIVERY AND SPECIAL HANDLING CHECK SERVICES REQUIRED
1. HOLD FOR PICK-UP Give the Federal Express address where you want package held in Section H at right.
2. DELIVER WEEKDAY
3. DELIVER SATURDAY (Extra charge applies)
4. RESTRICTED ARTICLES SERVICE (P-1 and Standard Air Packages only. Extra charge applies.)
5. SIGNATURE SECURITY SERVICE (SSS) (Extra charge applies)
6. DRY ICE ____ Lbs.
7. OTHER SPECIAL SERVICE
8.
9. SATURDAY PICK-UP OR SATURDAY DROP-OFF (Extra charge applies)

PACKAGES	WEIGHT	YOUR DECLARED VALUE (See right)	OVER SIZE
1	6		
Total 1	Total 6	Total	

Received At: Shipper's Door | Regular Stop | On-Call Stop | FedEx Loc.

Federal Express Corp. Employee No.

Date/Time For Federal Express Use: 4/7 15??

YOUR DECLARED VALUE
DAMAGE OR LOSS
We are liable for no more than $100 per package in the event of physical loss or damage, unless you fill in a higher Declared Value to the left and document higher actual loss in the event of a claim. We charge 30¢ for each additional $100 of declared value up to the maximum shown in our Service Guide. Declared value restrictions are shown on the back of the Shipper's Copy of this airbill. We make no express or implied warranties.

DELAY
There is always a risk of late delivery or non-delivery. In the event of a late delivery Federal Express will, at your request, refund all transportation charges paid. See back of Shipper's Copy of this airbill for further information.

CONSEQUENTIAL DAMAGES
We will not be responsible or liable for any loss or damage resulting from delay, non-delivery or damage to a package, except as noted above. This includes loss of sales, income, interest, profits, attorneys fees and other costs, but is not limited to these items. Such damages are called "consequential damages."

PART #2041738901 FEC-S-751-1000 REVISION DATE 10/84 PRINTED U.S.A. SRC

Date/Time For Federal Express Use: 4/? ...

CONSEQUENTIAL DAMAGES
We will not be responsible or liable for any loss or damage resulting from delay, non-delivery or damage to a package, except as noted above. This includes loss of sales, income, interest, profits, attorneys fees and other costs, but is not limited to these items. Such damages are called "consequential damages."

PART #2041738901 FEC-S-751-1000 REVISION DATE 10/84 PRINTED U.S.A. SRC

19241

Date/Time For Federal Express Use: 4-10 1410

19241

Date/Time For Federal Express Use: 4-10 1410

19341

Date/Time For Federal Express Use: 4-10 1410

Date/Time For Federal Express Use: 4/11 8:50

PART #2041738901 FEC-S-751-1000 REVISION DATE 10/84 PRINTED U.S.A. SRC

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TX 10154
PROJECT NAME: Dallas City Landfill Walnut Hill

SAMPLERS: (Signature) Alice Chris J. Mike Cole

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Extractable (1 liter)	Reactive Cyan. (1 liter)	VOA (40 ml)				REMARKS
05	4/11/85	1254 1305		X	W. of Malden Lane @ Cal. crossing canal bridge	2	X						TRIP FA736 Tag # 6-07578 6-07579
05	4/11/85	1254 1305		X	"	2		X					" 6-07580, 6-07581
05	4/11/85	1286 1302		X	"	2			X				" 6-07582, 6-07583
17	4/11/85	1325 1335		X	Rinsate Blank	2	X						FA737 6-07594, 6-07595
17	4/11/85	1325 1335		X	"	2		X					" 6-07596, 6-07597
17	4/11/85	1325 1335		X	"	2			X				" 6-07598, 6-07599

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mike Cole, Alice Chris	4/11/85 1600	Federal Express			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Air 6.11 # 429436486 case # 4166 Low Conc. Water org.	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5600

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TX 10154
PROJECT NAME: Dallas City Landfill - Walnut Hill
SAMPLERS: (Signature) Alice Chris / Curtis E Cole

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	Extractable (8 oz)	Pesticides (8 oz)	VOA (4 oz)			REMARKS	
09	4/11/85	1110-1115		X	E. side culvert beneath dirt road crossing other stream	1	X					FB 293	Tag # 6-07495
09	4/11/85	1110-1115		X	"	1		X				"	6-07496
	4/11/85	1110-1115		X	"	2			X			"	6-07498, 6-07497
15	4/11/85	1145-1155		X	end of pond @ S.E. Property corner	1	X					FB 292	6-07500
15	4/11/85	1145-1155		X	"	1		✓				"	6-07501
15	4/11/85	1145-1155		X	"	2			X			"	6-07502, 6-0750[illegible]
07	4/11/85	1035-1100		X	E.S. dig Cal. crossing canal 500' N. of convergence with stream	2	X					FB 296	6-07517, 6-07565
07	4/11/85	1035-1100		X	"	2		X				"	6-07518, 6-07568
07	4/11/85	1035-1100		X	"	~~2~~ 4			X			"	6-07570, 6-07569, 6-07549, 6-07548
05	4/11/85	1256-1305		X	W. of Malibu Ln. @ Cal. R. King canal bridge	1	X					FB 297	6-07572
05	4/11/85	1256-1305		X	"	1		X				"	6-07573
05	4/11/85	1256-1305		X	"	2			X			"	6-07575, 6-07574

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Curtis E Cole / Alice Chris	4/11/85 1600	Federal Express			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
				Airbill # 42943646[illegible] Case # 4166 Low conc. Soil (orig.)

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6-5599

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TV 10154
PROJECT NAME: Dallas City Landfill - Walnut Hill

SAMPLERS: *(Signature)* Alice Chris J [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Extractables (1 liter)	Pesticides (1 liter)	VOA (40ml)				REMARKS	
10	4/11/85	0928-0940		X	Calif. King Drainage canal 50' N. of RR. bridge	2	X						TRIO FB 234	Tag 6-07472, 6-07473
10	4/11/85	0928-0940		X	"	2		X					"	6-07476, 6-07477
10	4/11/85	0928-0940		X	"	2			X				"	6-07478, 6-07479
08	4/11/85	1125-1135		X	W. of culvert for other stream under I35	2	X						FB 300	6-07512, 6-07511
08	4/11/85	1125-1135		X	"	2		X					"	6-07513 ~~[illegible]~~ K.S.
08	4/11/85	1125-1135		X	"	2			X				"	6-07516, 6-07517
07	4/11/85	1035-1100		X	E. side of Cal. King canal 500' N. of convergence with other stream	4	X						FB 735	6-07558 6-07562 6-07550 6-07560
07	4/11/85	1035-1100		X	"	4		X					"	6-07557 6-07559 6-07556 6-07586
07	4/11/85	1035-1100		X	"	6			X				"	6-07554 6-07561 6-07564 6-07555 6-07565 6-07566

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Alice Chris J [signature]	4/11/85 ~~1600~~ 1600	Federal Express			
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
				Airbill # 42943 6453 case # 4166 Low concentration Water (orig)

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5598

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TX1054
PROJECT NAME: Dallas City Landfill - Walnut Hill
SAMPLERS: (Signature) Willie Echols Alice Chrin

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Metals (1 liter)	Metals & Cyanide (1 liter)	Cyanide (1 liter)				REMARKS
													Traffic Form #
04	4/10/85	9:50-9:59		X	W Street at Lenton Road. E side of road 3' from culvert	1	X						TRIP MFA016 Tag # 6-07611
04	4/10/85	9:50-9:59		X	"	1		X					MFA015 6-07608
04	4/10/85	9:50-9:59		X	"	1			X				MFA015 6-07606
03	4/10/85	10:35-10:40		X	30' E. of R.R. Track imm. E. of Station #4	1	X						MFA017 6-07631
01	4/10/85	1050 1106		X	50' N. of Joe Field Rd. @ Stream Crossing	1	X						MFA065 6-07624
01	4/10/85	1050 1100		X	"	1		X					MFA 066 6-07614
01	4/10/85	1050 1100		X	"	1			X				MFA 066 6-07615
11	4/10/85	1135-1146		X	Intersection of Walnut Hill and Springler Roads.	1	X						MFA 068 6-07640
12	4/10/85	1155-1200		X	Projected intersection of Walnut Hill and Luna Rd.	1	X						MFA 067 6-07458
16	4/10/85	[illegible]	X		Rinsate Blank	1		X					MFA 069 6-07633
16	4/10/85	[illegible]	X		Rinsate Blank	1			X				MFA 069 6-07632

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Willie Echols Alice Chrin	4/10/85 1400	Federal Express			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Airbill # 429436420 Case # 4166 Low Concentration Soil + Water (in ice)	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5595

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
TX 10154	Dallas City Landfill - Walnut Hill

SAMPLERS: (Signature) Victor Cole, Alice Chrisp

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Extractable	REMARKS
12	4/10/85	1155-1200		X	Projected intersection of Walnut Hill & Luna Road	1	X	FB 287 Tag # 6-09457

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Victor Cole, Alice Chrisp					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
					Airbill # 429436442 Case # 4166 Inv conc. Soil

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5596

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO. TX10154 | PROJECT NAME Dallas City Landfill - Walnut Hill

SAMPLERS: (Signature) Alice Chang

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Extractable (8270)	Pesticide (8080)	VOA (1200nd)				REMARKS
04	4/10/85	9:50-9:59		X	W Street at Tenter Road & E. Sideroad 3' from culvert	1	X						TRN FB237 Tag# 6-07613
04	4/10/85	9:50-9:59		X	"	1		X					" 6-07612
04	4/10/85	9:50-9:59		X	"	1			X				" 6-07609
04	4/10/85	9:50-9:59		X	"	1			X	~~X~~			" ~~6-07607~~ R.S. 6-07610
03	4/10/85	10:35-10:40		X	30' E. of RR. Track immed. E. of Station #4	2			X				FB 284 6-07628 6-07627
03	4/10/85	10:35-10:40		X	"	1		X					" 6-07630
03	4/10/85	10:35-10:40		X	"	~~1~~ 1	X						" 6-07629
01	4/10/85	10:50-1100		X	30' N. of Joe Field Rd. @ Stream Crossing	2			X				FB 285 R.S. 6-07622 6-07623
01	4/10/85	1050-1100		X	"	1		X					" 6-07625
01	4/10/85	1050-1100		X	"	1	X						" 6-07626
11	4/10/85	1135-1140		X	Intersecting of Walnut Hill and Spanglit Road	2			X				FB 288 6-07456 6-07454
11	4/10/85	1135-1140		X	"	1		X					" 6-07455
11	4/10/85	1135-1140		X	"	1	X						" 6-07453
12	4/10/85	1155-1200		X	Projected intersection Walnut Hill & Luna Rd	2			X				FB 287 6-07460 6-07461
12	4/10/85	1155-1200		X	"	1		X					" 6-07459

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Alice Chang					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Airbill # 42 9436442 Case # 4164 Low concentration Soil	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5592

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TX10154 | PROJECT NAME: Dallas City Landfill – Walnut Hill

SAMPLERS: (Signature) Alice Chriss J. Willie Slate

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Extractables	VOA	Pesticides				REMARKS
04	4/10/85	9:50-9:59		X	WSF. at Tentor Road, E. side of road 3' from culvert.	2	X						TRIP FB 236 Tag # 6-07604 6-07607
04	4/10/85	9:50-9:59		X	"	2		X					" 6-07601 6-07602
	4/10/85	9:50-9:59		X	"	2			X				" 6-07603 6-07605
01	4/10/85	1050 1100		X	30' D. of Ft. Field Rd. @ Stream Crossing	2			X				FB 286 6-07619 6-07618
01	4/10/85	1050 1100		X	"	2		X					" 6-07621 6-07620
01	4/10/85	1050 1100		X	"	2	X						" 6-07617 6-07616
16	4/10/85	1230	X		Rinsate Blank	2	X						FB 289 6-07639 6-07638
16	4/10/85	1230	X		"	2		X					" 6-07636 6-07637
16	4/10/85	1230	X		"	2			X				" 6-07635 6-07634

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Willie Slate, Alice Chriss J.					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Air bill # 42943643 1 Case # 4166 Low Concentration Water	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5593

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TV10154 | PROJECT NAME: Dallas City Landfill - Walnut Hill

SAMPLERS: (Signature) Alice Chrisp

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Metals (Liter)	Cyanide (Liter)	Metals & Cyanide				REMARKS
10	4/11/85	0928-0940		X	Calif. Xing Drainage canal 50' N. of R.R. Bridge	2	X	X	X				TRIP MFA 071 Tag 6-07474 6-07475
10	4/11/85	0928-0940		X	"	1			X				MFA 070 6-07469
13	4/11/85	0955-1000		X	30' E. from S.W. corner of property & Spangler Rd.	1			X				MFA 014 6-07464
14	4/11/85	0905-0913		X	N. of Manana Rd. & 30' E. of intersection w/ Hawk St.	1			X				MFA 072 6-07481
06	4/11/85	1240-1251		X	E. of Goodrich Rd. & S. bank @ Calif. crossing canal	1			X				MFA 076 6-07489
08	4/11/85	1125-1135		X	W. of culvert for other stream under I35	1			X				MFA 075 6-07504
09	4/11/85	1110-1115		X	E. side of culvert beneath dirt road crossing other stream	1			X				MFA 074 6-07494
015	4/11/85	1145-1155		X	Edge of pond @ SE property corner.	1			X				MFA 073 6-07499
07	4/11/85	1035-1100		X	E. side of Cal. crossing of canal & 500' N. of convergence of other stream	2			X				MFA 077 6-07547 6-07548
06	4/11/85	1125-1135		X	W. side of culvert for other stream under I35	2	X	X					MFA 082 6-07509 6-07510
07	4/11/85	1035-1100		X	E. side of Cal. crossing canal 500' N. of convergence of other stream	2	X	X					MFA 081 6-07552 6-07553
05	4/11/85	1256-1305		X	W. of median Dr. @ Cal. Xing canal bridge	1			X				MFA 078 6-07571 6-07572
05	4/11/85	1252-1305		X	"	2	X	X					MFA 083 6-07577
04	4/11/85	1325-1335		X	Rinsate Blank	2	X	X					MFA 080 6-07592 6-07593

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Alice Chrisp	4/11/85 1600	Federal Express			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
					Air bill # 429436475 Case # 4166 Low Concentration Water & Soils

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5594

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TX10154
PROJECT NAME: Dallas City Landfill - Walnut Hill
SAMPLERS: (Signature) Alice Chrisp Jr. Walter Cole

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Extractable (8)	Pesticide (4)	VOA (4)	REMARKS
10	4/11/85	0928-0940		X	Calif. King drainage canal 50' N. of Rd. R. Bridge	1	X			TRN FB 235 Tag 6-07467
10	4/11/85	0928-0940		X	"	1		X		" 6-07468
10	4/11/85	0928-0940		X	"	2			X	" 6-07470, 6-07471
13	4/11/85	0955-1000		X	30' from S.W. corner of Pit. E. of Spangler Rd.	1	X			FB 290 6-07462
13	4/11/85	0955-1000		X	"	1		X		" 6-07463
13	4/11/85	0955-1000		X	"	2			X	" 6-07465, 6-07466
14	4/11/85	0905-0913		X	N. of Manana Rd. 30' E. of intersection with Newkirk St.	1	X			FB 291 6-07480
14	4/11/85	0905-0913		X	"	1		X		" 6-07482
14	4/11/85	0905-0913		X	"	2			X	" 6-07483, 6-07484
06	4/11/85	1240-1251		X	E. of Goodnight Lane @ Cal. Crossing Canal	1	X			FB 295 6-07490
06	4/11/85	1240-1251		X	"	1		X		" 6-07491
06	4/11/85	1240-1251		X	"	2			X	" 6-07492, 6-07493
08	4/11/85	1125-1135		X	W. of Culvert for other stream under I35.	1	X			FB 294 6-07505
08	4/11/85	1125-1135		X	"	1		X		" 6-07506
08	4/11/85	1125-1135		X	"	2			X	" 6-07507, 6-07508

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Alice Chrisp Jr. Walter Cole	4/11/85 1600	Federal Express			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Air Bill # 429436464 Case # 4166 Low Concentration Soil/ org.	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—5597

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: TX10154
PROJECT NAME: DALLAS CITY LANDFILL, WALNUT HILL
SAMPLERS: (Signature) Alice Chruss

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	500ml (Water)	40 ml (Soil)					REMARKS	
10	4/11/85	0918-0940		X	CAL crossing drainage canal 30' North of Railroad bridge	2	X	X					Tag # Water 6-07485	Tag # Soil 6-07486
13	4/11/85	0955-1000		X	30' from S.W. corner of Property east of Spangler Rd.	1		X					—	6-07488
14	4/11/85	0905-0913		X	N. of Mahana Rd. 30' E. of intersection with Newkirk Rd.	1		X					—	6-07487
07	4/11/85	1035-1100		X	E. side of Cal. Crossing canal 500' N. of convergence with other stream	2	X	X					6-07588	6-07587
08	4/11/85	1125-1135		X	W. of culvert for other stream under I35	2	X	X					6-07585	6-07584
15	4/11/85	1110-1115		X	Edge of pond @ S.E. property corner	1		X					—	6-07558
05	4/11/85	1256 1305		X	West of Mal. bar Ln @ Cal. King bridge	2	X	X					6-07591	6-07590
06	4/11/85	1240 1251		X	E. of Goodnight Ln @ Cal. Crossing	1		X					—	6-07589

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Alice Chruss	4/11/85 1410				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6—3103

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

4/11/85
(Date)

RECEIPT FOR SAMPLES

NAME AND TITLE OF EPA REPRESENTATIVE: Hunt Chapman
FIT Chemist
Hunt Chapman
(Signature)

SAMPLES COLLECTED:

SAMPLE NUMBER	TIME	PLACE COLLECTED	TYPE	VOLUME	SPLIT SAMPLE REQUESTED	SPLIT SAMPLE PROVIDED
6-07485	0928-0940	Station #10	Water	500ml	500ml ✓	500ml ✓
6-07486	0928-0940	station #10	Soil	40ml	40ml ✓	40ml ✓
6-07488	0955-1000	station #13	Soil	40ml	40ml ✓	40ml ✓
6-07487	0905-0913	station #14	Soil	40ml	40ml ✓	40ml ✓
6-07588	1035-1100	Station #7	Water	500ml	500ml ✓	500ml ✓
6-07587	1035-1100	Station #7	Soil	40ml	40ml ✓	40ml ✓
6-07584	1125-1135	Station #8	Soil	40ml	40ml ✓	40ml ✓
6-07585	1125-1135	Station #8	Water	500ml	500ml ✓	500ml ✓
6-07558	1110-1115	Station #15	Soil	40ml	40ml ✓	40ml ✓

ACKNOWLEDGEMENT OF FACILITY REPRESENTATIVE

The undersigned acknowledges that the samples described above have been collected.

NAME, TITLE AND ADDRESS OF FACILITY REPRESENTATIVE:

(Signature) 4/11/85 (Date)

DISTRIBUTION: One copy facility representative
One copy for inspector's records
Original to Regional Office

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: Sept. 9, 1985

RECEIVED
EPA REGION VI
1985 SEP 17 AM 10:20
SUPERFUND BRANCH

SUBJECT: Potential Hazardous Waste Site

FROM: Keith Bradley, FIT RPO
Hazardous Waste Section (6ES-SH)

TO: Martha McKee, Chief
Compliance Section (6AW-SC)

Dallas City of LDFL-Walnut Hill

Site Name: Walnut Hill Landfill
Location: Dallas, Tx
Hazsit No.: TX 10154 TXD 980 623 193
TDD No.: 06-8502-39

X REF IN SA Vol. 1

A. Deliverables:

1.	Preliminary Assessment (Form 2070-2)	attached ( )
2.	Site Inspection Report (Form 2070-3)	attached ( )
3.	Sampling Inspection Report	attached (✓)
4.	Other: _____	attached ( )

B. Were drinking water wells sampled? Yes ( ) No (✓)

C. Analytical Data:

1.	None collected	( )
2.	Field data	( )
3.	Contract lab results	attached (✓)
4.	Houston lab results	attached ( )

D. Comments:

Contaminants were detected in the soil and water samples obtained by FIT. FIT recommends that a groundwater monitoring system be implemented at the site in order to assess possible groundwater contamination.

SUPERFUND
FILE

JUN 24 1992

REORGANIZED

cc:(circle) Cabra 6W-EM
Garza 6ES-E
Taylor 6AW-HE

EPA Form 1320-6 (Rev. 3-76)

X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

4/11/85
(Date)

RECEIPT FOR SAMPLES

NAME AND TITLE OF EPA REPRESENTATIVE: Hunt Chapman

FIT - Chemist

Hunt Chapman
(Signature)

SAMPLES COLLECTED:

SAMPLE NUMBER	TIME	PLACE COLLECTED	TYPE	VOLUME	SPLIT SAMPLE REQUESTED	SPLIT SAMPLE PROVIDED
6-07591	1256-1305	Station #05	Water	500ml	500ml	500ml
6-07590	1256-1303	Station #05	Soil	40ml	40ml	40ml
6-07589	1240 1251	Station #06	Soil	40ml	40ml	40ml

ACKNOWLEDGEMENT OF FACILITY REPRESENTATIVE

The undersigned acknowledges that the samples described above have been collected.

NAME, TITLE AND ADDRESS OF FACILITY REPRESENTATIVE:

Donald L. [illegible]
(Signature)

4/11/85
(Date)

DISTRIBUTION: One copy facility representative
One copy for inspector's records
Original to Regional Office

TX 10154

1

California Analytical Laboratories, Inc.
2544 Industrial Boulevard • West Sacramento, CA 95691 • (916) 372-1393

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818--Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

REPORTED: 6/14/85
Received: 4/11/85
4/12/85

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name: California Analytical Labs, Inc. Case No.: 4166
SOW No.: 784 Q.C. Report No.: 4166
Contract No.: 68-01-6810

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MFA015	P2501	MFA066	P2502
MFA069	P2503	MFA016	P2504
MFA017	P2505	MFA065	P2506
MFA067	P2507	MFA068	P2508
MFA014	P2509	MFA070	P2510
MFA072	P2511	MFA073	P2512
MFA074	P2513	MFA075	P2514
MFA076	P2515	MFA077	P2516
MFA078	P2517	MFA071	P2518
MFA080	P2519	MFA081	P2520
MFA082	P2521	MFA083	P2522

ICP Interelement and background corrections applied? Yes.
Corrections applied before generation of raw data.
FOOTNOTES:
NR - not required by contract at this time
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (ie.[10]). Indicate the analytical method used with P (for ICP/Flame AA), F (for furnace), or CV (for cold vapor).
U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., <10U).
E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.
S - Indicates value determined by Method of Standard Addition.
R - Indicates spike sample recovery is not within control limits.
* - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is less than 0.995.

TXD980623193
Dallas City of LDFL-WALNUT HILL
TX REF IN SA VOL 1

TX10154

COMMENTS: Bottles for sample MFA015 were labelled incorrectly when received by Cal Labs. The pH of the Task 3 bottle was about 5. Since Task 3 samples are preserved with NaOH the pH of this sample should have been about 12. The pH of the Task 1 & 2 bottle was about 12. Since Task 1 & 2 samples are preserved with HNO3 the pH of this sample should have been about 2. Obviously the Task 3 and Task 1 & 2 labels were reversed. Cal Labs relabelled, redigested and redistilled the correct samples.

The second calibration blank for the ICP run on 5/21/85 was 16 ppb high in Lead. Lead was rerun on the ICP on 6/7/85 for all samples not covered by AA data.

The serial dilution analysis for the low soil samples did not meet EPA requirements (SOW 784, D-32.5) for Cr and Pb.

Anthony S. Wong

Anthony S. Wong, PhD
Vice President
Research and Analytical
Services

TX 10154

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

5

Order No. P № 2501

Date Rec'd. 4/11/85 09:15

Compl. Date

Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1&2, CN=

case no. 4166/1

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2501-1	MFA015	6-07608	1l plastic bottle	T1&2
" -2	"	6-07606	" " "	CN=

LOW WATER

no. of bottles/jars 2 volume full

sample description: Appears slightly cloudy water w/ sm. amt. of gray sed.

bottle sealed: yes ✓ no ; tape official seal ✓

label on bottle (other than preprinted label): No

packing information: (only on (first) lab ticket of the series)

chain of custody record rec'd: yes ✓ no

official seal on ice chest: yes ✓ no ; intact: yes ✓ no

in lieu of seal-tape intact: yes no

EPA I.D. and tag numbers agree on all documents: yes ✓ no

other information:

Samples rec'd in ice chest, w/o ice in good condition; soils in gmp jar, blisters-pak all packed in vermiculite.

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2502
Date Rec'd. 4/11/85 09:15
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1&2, CN=

case no. 4166 1

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2502-1	MFA066	6-07614	1l plastic bottle	T1&2
" -2	"	6-07615	" " "	CN=

LOW WATER

no. of bottles/jars 2 volume full
sample description: Appears clear water w/ sm. amt. of med. brown sed.

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label): No

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2503

Date Rec'd. 4/11/85 09:15

Compl. Date

Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1&2, CN=

case no. 4166 1

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2503-1	MFA069	6-07633	1l plastic bottle	
" -2	"	6-07632		

LOW WATER

no. of bottles/jars 2 volume full

sample description: appears clear colorless water

bottle sealed: yes ✓ no ; tape official seal ✓

label on bottle (other than preprinted label): No

packing information: (only on first lab ticket of the series)

chain of custody record rec'd: yes no

official seal on ice chest: yes no ; intact: yes no

in lieu of seal-tape intact: yes no

EPA I.D. and tag numbers agree on all documents: yes no

other information:

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № .2504

Date Rec'd. 4/11/85 09:15

Compl. Date _____

Notebook _____

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1&2, CN=

case no. 4166 11

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2504	MFA016	6-07611	8oz clear glass jar	

LOW SOIL

no. of bottles/jars 1 volume full

sample description: Appears mottled lt. brown to med. brownish gray, w/ water amt. on top

bottle sealed: yes ✓ no ____; tape ____ official seal ✓

label on bottle (other than preprinted label): No

packing information: (only on (first) lab ticket of the series)

chain of custody record rec'd: yes ____ no ____

official seal on ice chest: yes ____ no ____; intact: yes ____ no ____

in lieu of seal-tape intact: yes ____ no ____

EPA I.D. and tag numbers agree on all documents: yes ____ no ____

other information:

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P Nº 2505

Date Rec'd. 4/11/85 09:15

Compl. Date _____

Notebook _____

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1 & 2, CN=

case no. 4166 1

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2505	MFA017	6-07631	8oz. clear glass jar	

LOW SOIL

no. of bottles/jars 1 volume 80%

sample description: appears charcoal gray - loose, moist

bottle sealed: yes ✓ no _____; tape _____ official seal ✓

label on bottle (other than preprinted label): No

packing information: (only on (first) lab ticket of the series)

chain of custody record rec'd: yes _____ no _____

official seal on ice chest: yes _____ no _____; intact: yes _____ no _____

in lieu of seal-tape intact: yes _____ no _____

EPA I.D. and tag numbers agree on all documents: yes _____ no _____

other information:

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P Nº 2506
Date Rec'd. 4/11/85 09:15
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1 & 2, CN=

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2506	MFA065	6-0762	4 oz.	clear glass jar

LOW SOIL

no. of bottles/jars 1 volume 90%

sample description: Appears mottled lt. brown to med. gray, wet, solid

bottle sealed: yes ✓ no ; tape official seal ✓

label on bottle (other than preprinted label): No

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P Nº 2507

Date Rec'd. 4/11/85 09:15

Compl. Date _____

Notebook _____

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1 & 2, CN=

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2507	MFA067	6-07458	8oz.	clear glass jar

LOW SOIL

no. of bottles/jars 1 volume full

sample description: Appears mottled lt. brown to med. gray, w/ "4" water on top, solid

bottle sealed: yes ✓ no _____; tape _____ official seal ✓

label on bottle (other than preprinted label): No

packing information: (only on first lab ticket of the series)

chain of custody record rec'd: yes _____ no _____

official seal on ice chest: yes _____ no _____; intact: yes _____ no _____

in lieu of seal-tape intact: yes _____ no _____

EPA I.D. and tag numbers agree on all documents: yes _____ no _____

other information:

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P Nº 2508

Date Rec'd. 4/11/85 09:15

Compl. Date _____

Notebook _____

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1 & 2, CN=

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2508	MFA068	6-07640	8oz clear glass jar	

LOW SOIL

no. of bottles/jars 1 volume 95%

sample description: Appears mottled lt. to med brown, solid

bottle sealed: yes ✓ no _____; tape _____ official seal ✓

label on bottle (other than preprinted label): No

packing information: (only on first lab ticket of the series)

chain of custody record rec'd: yes _____ no _____

~~official seal on ice chest: yes _____ no _____; intact: yes _____ no _____~~

in lieu of seal-tape intact: yes _____ no _____

EPA I.D. and tag numbers agree on all documents: yes _____ no _____

other information:

BMc 4/11/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

5

Order No. P № 2509

Date Rec'd. 4-12-85 0950

Compl. Date

Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2. CLP QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2509-1	MFA014	6-07464	802 CLEAR Glass jar	

LOW SOIL

no. of bottles/jars 1 volume 90%

sample description:
APPEARS RUST COLOR

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label):
13

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes ✓ no
official seal on ice chest: yes ✓ no ; intact: yes ✓ no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes ✓ no
other information:
SAMPLES RCD IN ICE CHEST W/O ICE IN GOOD CONDITION 802 SOILS WRAPPED IN BLISTER PAK & ALL PACKED IN VERCULITE.

mm 4/12/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2510
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2, CN QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2510	MFA070	B-07469	802	clear glass jar

LOW SOIL

no. of bottles/jars 1 volume full
sample description:
appears grayish soil

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label):
NONE

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

ML 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2511
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2, CA-QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2511	MFA072	6-07481	8oz CLEAR	Glass jar

LOW SOIL

no. of bottles/jars 1 volume 90%

sample description: appears grey brown

bottle sealed: yes ✓ no ; tape ✓ official seal ✓

label on bottle (other than preprinted label): 14

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
~~in lieu of seal-tape intact: yes no~~
EPA I.D. and tag numbers agree on all documents: yes no
other information:

4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2512
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2, CN=QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2512	MFA073	6-07499	8oz clear glass jar	

LOW SOIL

no. of bottles/jars 1 volume 95%

sample description: APPEARS WET & GREENISH COLOR

bottle sealed: yes ✓ no ; tape official seal ✓

label on bottle (other than preprinted label): 15

packing information: (only on first lab ticket of the series)

chain of custody record rec'd: yes no

official seal on ice chest: yes no ; intact: yes no

~~in lieu of seal-tape intact~~: yes no

EPA I.D. and tag numbers agree on all documents: yes no

other information:

mr 4/12/85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2513

Date Rec'd. 4-12-85 0930

Compl. Date

Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2. CN⁻ QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2513	MFA 074	6-07494	8oz clear glass jar	

LOW SOIL

no. of bottles/jars 1 volume 90%

sample description: appears black & wet

bottle sealed: yes ✓ no ; tape official seal ✓

label on bottle (other than preprinted label): none

packing information: (only on first lab ticket of the series)

chain of custody record rec'd: yes no

official seal on ice chest: yes no ; intact: yes no

in lieu of seal-tape intact: yes no

EPA I.D. and tag numbers agree on all documents: yes no

other information:

ML 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2514
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2. Cal-Quart

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2514	MFA075	6-07504	8oz clear	Glass jar

LOW Soil

no. of bottles/jars 1 volume 90%
sample description: appears Jack w/ water

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label): B

packing information: (only on first lab ticket of the series)
chain of custody record ~~rec'd:~~ yes no
~~official seal on ice chest: yes no ; intact: yes no~~
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

m 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2515
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2. CN^E QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2515	MFA076	6-07489	8oz CLEAR	GLASS JAR

LOW SOIL

no. of bottles/jars 1 volume FULL
sample description: appears DARK

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label): DOHS

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

ML 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2516
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 142. CN-QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
D2516-1	MFA077	6-07547	802 CLEAR	GLASS JAR
" -2	"	6-07567	"	

LOW SOIL

no. of bottles/jars 2 volume FULL
sample description:
BOTH APPEAR WET + GREEN

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label):
NONE

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

m 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2517
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2, CN= QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2517	MFA078	6-07571	8oz clear	Glass jar

LOW SOIL

no. of bottles/jars 1 volume 90%
sample description: appear WET + BROWN

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label): 5

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

ML 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2518
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2, CN=QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2518-1	MFA071	6-07474	1 L	PLASTIC BTL T1+2
" -2	"	6-07475	"	CN=QUANT

LOW WATER

no. of bottles/jars 2 volume 1 LITER
sample description:
BOTH APPEAR CLOUDY WATER

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label):
NONE

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

ML 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2519
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2, CN-QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2519-1	MFA080	6-07592	1L PLASTIC BLT	T1+2
" -2	"	6-07593	"	CN-QUANT

LOW WATER

no. of bottles/jars 2 volume FULL
sample description:
APPEARS CREEK WATER (BOTH)

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label): NONE BLANK

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

MM 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2520
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 1+2. CN⁻ QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2520-1	MFR081	b-07552	1Q PLASTIC BTL	T1+2
" -2	"	b-07553	"	CN⁻

LOW WATER

no. of bottles/jars 2 volume FULL
sample description:
BOTH APPEAR DARK

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label):
NONE

packing information: (only on first lab ticket of the series)
chain of custody record rec'd. yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

MM 4-12-85

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2521
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 142, CN= QUART

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2521-1	MFA082	6-07509	1L	PLASTIC GTL T142
" -2	"	6-07510	"	CN=

LOW WATER

no. of bottles/jars 2 volume full
sample description:
BOTH APPEAR CLEAR

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label):
NONE

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

MM 4-12 85

X

California Analytical Laboratories, Inc.
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

Order No. P № 2522
Date Rec'd. 4-12-85 0930
Compl. Date
Notebook

CUSTOMER: U.S. EPA-INORGANICS (TOTAL METALS)

CONTRACT NO. 68-01-6617 or 68-01-6810 or 68-01-6873

ANALYSIS: TASK 142, CN = QUANT

case no. 4166

CAL ID	EPA ID	TAG NO	SIZE	Analysis
P2522-1	MFA083	6-07576	1L PLASTIC RTL	T142 CN=
" -2	"	6-07577	"	

LOW WATER

no. of bottles/jars 2 volume FULL
sample description:
BOTH APPEAR YELLOWISH COLOR

bottle sealed: yes ✓ no ; tape official seal ✓
label on bottle (other than preprinted label):
NONE

packing information: (only on first lab ticket of the series)
chain of custody record rec'd: yes no
official seal on ice chest: yes no ; intact: yes no
in lieu of seal-tape intact: yes no
EPA I.D. and tag numbers agree on all documents: yes no
other information:

MM 4/12/85

Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/10/85 – 1002 – Facing NE

Comments: Station 04

Photo 1

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

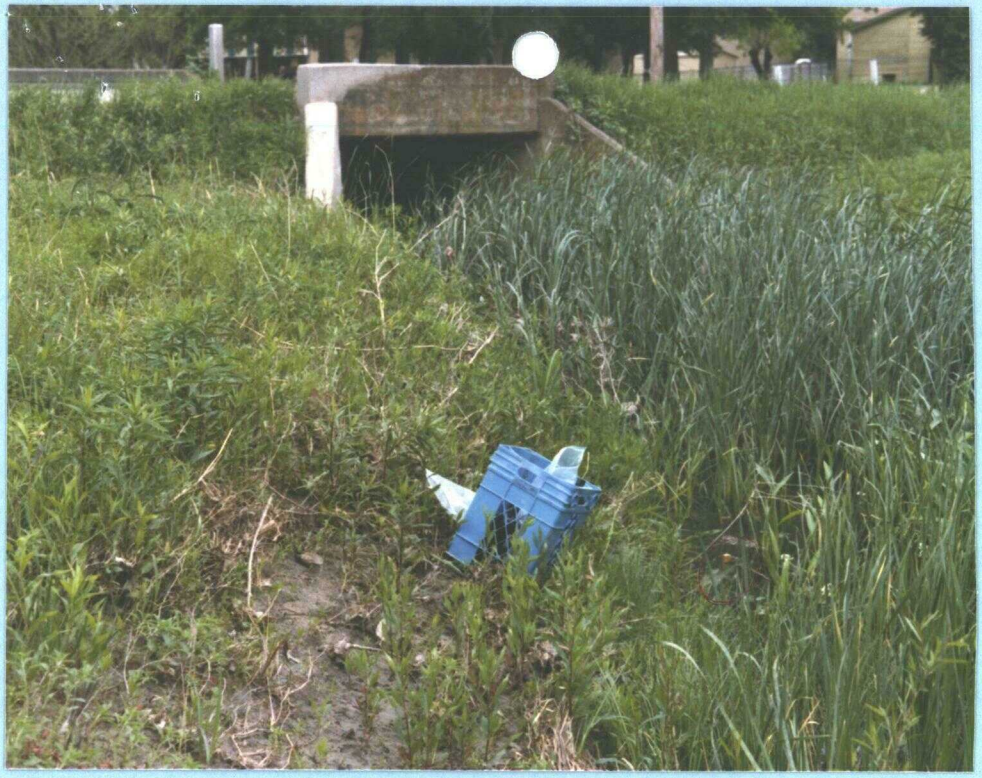
Chapman / Calhoun

Date / Time / Direction

4/10/85 – 1042 – Facing east

Comments: Station 03

Photo 2



Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/10/85 - 1100 - Facing SSW

Comments: Station 01

Photo 3

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/10/85 - 1142 - Facing West

Comments: Station 11

Photo 4

Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/10/85 - 1200 - Facing NE

Comments: Station 12

Photo 5

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/11/85 - 0915 - Facing west

Comments: Station 14

Photo 6

Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/11/85 - 0942 - Facing SSW

Comments: Station 10

Photo 7

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/11/85 - 1002 - Facing NE

Comments: Station 13

Photo 8

Photographer / Witness

Chapman / Calleros

Date / Time / Direction

4/11/85 - 1100 - Facing East

Comments: Station 07

Photo 9

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Chapman / Calleros

Date / Time / Direction

4/11/85 - 1112 - Facing NW

Comments: Station 09

Photo 10

Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/11/85 - 1135 - Facing NE

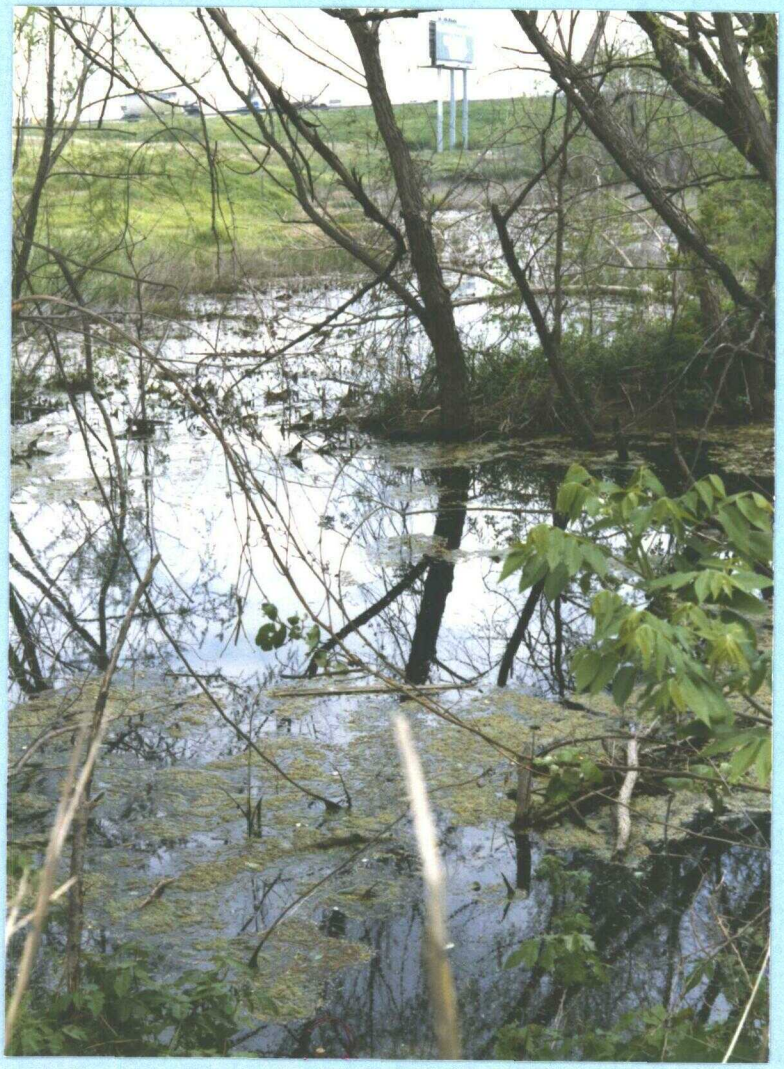
Comments: Station 08

Photo 11

Photographer / Witness

Date / Time / Direction

Comments:



Photographer / Witness

Chapman / Calhoun

Date / Time / Direction

4/11/85 - 1155 - Facing east

Comments: Station 15

Photo 12